

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

CLAIM 1 (Canceled):

CLAIM 2 (Currently Amended):

2 The program storage medium as recited in ~~claim 1~~claim 19, wherein first and second nodes are electronic devices.

CLAIM 3 (Currently Amended):

2 The program storage medium as recited in ~~claim 1~~claim 19, wherein first and second switching devices are electronic devices selected from the group consisting of repeaters, hubs, routers, bridges, and switches.

CLAIM 4 (Currently Amended):

2 The program storage medium as recited in ~~claim 1~~claim 19, wherein the star segment further comprises a third node connected to a third port located on the first switching device.

CLAIMS 5-8 (Canceled):

CLAIM 9 (Currently Amended):

2 The computer operable method as recited in ~~claim 8~~claim 23, providing first and second nodes are electronic devices.

CLAIM 10 (Currently Amended):

2 The computer operable method as recited in ~~claim 8~~claim 23,
4 providing first and second switching devices are electronic devices selected from the group consisting of repeaters, hubs, routers, bridges, and switches.

CLAIM 11 (Currently Amended):

2 The computer operable method as recited in ~~claim 8~~claim 23, providing the star segment further comprises a third node connected to a third port located on the first switching device.

CLAIMS 12-15 (Canceled):

CLAIM 16 (Currently Amended):

2 The topological map as recited in ~~claim 15~~claim 27, wherein first and second nodes are electronic devices.

CLAIM 17 (Currently Amended):

2 The topological map as recited in ~~claim 15~~claim 27, wherein first and
second switching devices are electronic devices selected from the
group consisting of repeaters, hubs, routers, bridges, and switches.

CLAIM 18 (Currently Amended):

2 The topological map as recited in ~~claim 15~~claim 27, wherein if the map
segment is the star segment, the star segment further comprises a third
4 node connected to a third port located on the first switching device, the
third port, and that part of the network interconnecting the third port
and the third node.

CLAIM 19 (New):

2 A program storage medium readable by a computer, tangibly
embodying a software program executable by the computer to perform
method steps for automatically specifying a topological map, wherein
4 the topological map describes the connectivity of nodes on a computer
network, wherein the network comprises a first switching device
6 having a first port, said steps comprising:

8 if connection of a first node to the first port is detected:

10 if connection of a second node to the first port has been
previously detected, specifying that the topology of the network
12 comprises a bus segment attached to the first port, wherein the
bus segment comprises the first port, the first node, the second
14 node, and that part of the network interconnecting the first port,
the first node, and the second node;

16 otherwise, if the first node is a second port located on a second
switching device, specifying that the topology of the network
18 comprises a serial segment attached to the first port, wherein
the serial segment comprises the first port, the second port, and
20 that part of the network interconnecting the first port and the
second port; and
22

24 otherwise, specifying that the topology of the network
comprises a star segment attached to the first port, wherein the
26 star segment comprises the first port, the first node, and that
part of the network interconnecting the first port and the first
28 node.

CLAIM 20 (New):

2 The program storage medium as recited in claim 19, wherein the
method step specifying that the topology of the network comprises the
bus segment attached to the first port comprises:

4 if the bus segment is absent, specifying the bus segment;
6 if the serial segment was previously specified:
8 transferring the second node and the first port from the
previously specified serial segment to the bus segment,
10 deleting the previously specified serial segment, and
12 adding the first node to the bus segment;
14 otherwise, if the star segment was previously specified:
16 transferring the second node from the previously specified star
18 segment to the bus segment,
20 deleting the previously specified star segment, and
22 adding the first node to the bus segment; and
24 otherwise, adding the first node to the bus segment.

CLAIM 21 (New):

2 The program storage medium as recited in claim 19, wherein the
method step specifying that the topology of the network comprises the
serial segment attached to the first port comprises:
4 specifying the serial segment;
6 adding the first node to the serial segment; and
8 adding the first port to the serial segment.

CLAIM 22 (New):

2 The program storage medium as recited in claim 19, wherein the
method step specifying that the topology of the network comprises the
star segment attached to the first port comprises:
4 specifying the star segment;
6 adding the first node to the star segment; and
8 adding the first port to the star segment.

CLAIM 23 (New):

2 A computer operable method for automatically specifying a topological
map, wherein the topological map describes the connectivity of nodes

on a computer network, wherein the network comprises a first switching device having a first port, comprising the steps of:

if connection of a first node to the first port is detected:

if connection of a second node to the first port has been previously detected, specifying that the topology of the network comprises a bus segment attached to the first port, wherein the bus segment comprises the first port, the first node, the second node, and that part of the network interconnecting the first port, the first node, and the second node;

otherwise, if the first node is a second port located on a second switching device, specifying that the topology of the network comprises a serial segment attached to the first port, wherein the serial segment comprises the first port, the second port, and that part of the network interconnecting the first port and the second port; and

otherwise, specifying that the topology of the network comprises a star segment attached to the first port, wherein the star segment comprises the first port, the first node, and that part of the network interconnecting the first port and the first node.

CLAIM 24 (New):

The computer operable method as recited in claim 23, the method step specifying that the topology of the computer network comprises the bus segment attached to the first port comprising:

if the bus segment is absent, specifying the bus segment;

if the serial segment was previously specified:

transferring the second node and the first port from the previously specified serial segment to the bus segment,

deleting the previously specified serial segment, and

adding the first node to the bus segment;

otherwise, if the star segment was previously specified:

transferring the second node from the previously specified star segment to the bus segment,

deleting the previously specified star segment, and

22 adding the first node to the bus segment; and
24 otherwise, adding the first node to the bus segment.

CLAIM 25 (New):

2 The computer operable method as recited in claim 23, wherein the
method step specifying that the topology of the network comprises the
4 serial segment attached to the first port comprises:
specifying the serial segment;
6 adding the first node to the serial segment; and
8 adding the first port to the serial segment.

CLAIM 26 (New):

2 The computer operable method as recited in claim 23, wherein the
method step specifying that the topology of the network comprises the
4 star segment attached to the first port comprises:
specifying the star segment;
6 adding the first node to the star segment; and
8 adding the first port to the star segment.

CLAIM 27 (New):

2 A topological map for describing the connectivity of nodes on a
computer network, wherein the network comprises a first switching
4 device having a first port, comprising:
at least one map segment, wherein the map segment is
6
8 a bus segment connected to the first port if a first node and a
second node are connected to the first port, wherein the bus
segment comprises the first port, the first node, the second
10 node, and that part of the network interconnecting the first port,
the first node, and the second node;
12
14 otherwise, a serial segment connected to the first port if the first
node is a second port located on a second switching device,
wherein the serial segment comprises the first port, the second
16 port, and that part of the network interconnecting the first port
and the second port; and
18
20 otherwise, a star segment connected to the first port, wherein
the star segment comprises the first port, the first node, and that

part of the network interconnecting the first port and the first node.